



*Commonwealth of Virginia*

***VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY***

VALLEY REGIONAL OFFICE

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Secretary of Natural Resources

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Amy Thatcher Owens  
Regional Director

July 24, 2019

Mr. Robert Conrad  
Operations Manager  
Columbia Gas Transmission, LLC  
1700 MacCorkle Ave SE  
Charleston, West Virginia 25314  
via email: rconrad@cpq.com

Facility: Shenandoah Compressor Station  
Location: Page County  
Registration No.: 81139  
Plant ID No.: 51-139-0027

Dear Mr. Conrad:

Attached is a renewal Title V permit to operate your facility pursuant to 9 VAC 5 Chapter 80 Article 1 of the Virginia Regulations for the Control and Abatement of Air Pollution. This permit incorporates provisions from the permit dated August 23, 1991, as amended January 27, 1994, March 10, 1995, August 6, 1998, and September 16, 2008.

In the course of evaluating the application and arriving at a final decision to issue this permit, the Department of Environmental Quality (DEQ) deemed the application complete on September 27, 2018 and solicited written public comments by placing a newspaper advertisement in the *Page News & Courier* on February 28, 2019. The thirty-day required comment period, provided for in 9 VAC 5-80-270 expired on April 1, 2019.

The permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all permit conditions carefully.

This permit approval to operate shall not relieve Columbia Gas Transmission, LLC of the responsibility to comply with all other local, state, and federal permit regulations.

To review any federal rules referenced in the attached permit, please refer to the website on which the US Government Publishing Office maintains the text of these rules: [www.ecfr.gov](http://www.ecfr.gov), Title 40, Part 70.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, Director  
Department of Environmental Quality  
P. O. Box 1105  
Richmond, VA 23218

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact me at Janardan.Pandey@deq.virginia.gov or (540) 574-7817.

Sincerely,



Janardan R. Pandey, P.E.  
Air Permit Manager

Attachment: Permit

cc: David Taylor, DEQ Air Inspector  
Mili R. Patel, Columbia Pipeline Group Senior Environmental Engineer  
(milipatel@cpg.com)  
Director, DEQ OAPP  
Chief, Air Enforcement Branch (3AP20), U.S. EPA, Region III  
File DEQ-VRO



# *COMMONWEALTH of VIRGINIA*

## *DEPARTMENT OF ENVIRONMENTAL QUALITY*

### **Federal Operating Permit Article 1**

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Columbia Gas Transmission L.L.C.
Facility Name:	Shenandoah Compressor Station
Facility Location:	1656 Newport Road Shenandoah, VA 22849

Registration Number:	81139
Permit Number:	VRO81139

This permit includes the following programs:  
Federally Enforceable Requirements – Clean Air Act

August 1, 2019  
Effective Date

July 31, 2024  
Expiration Date

A handwritten signature in blue ink, appearing to read "BK Jule", written over a horizontal line.

Deputy Regional Director

July 24, 2019  
Signature Date

Permit Conditions 1 to 65, 24 pages  
Table of Contents, 1 page  
Source Test Report Format, 1 page

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## **Facility Information**

### **Permittee**

Columbia Gas Transmission L.L.C.  
1700 MacCorkle Avenue SE  
Charleston, West Virginia 25314

### **Responsible Official**

Mr. Robert Conrad  
Operations Manager  
34646 Old Valley Pike  
Strasburg, VA 22657

### **Facility**

Shenandoah Compressor Station  
1656 Newport Road  
Shenandoah, Virginia 22849

### **Contact Person**

Ms. Mili R. Patel  
Senior Environmental Engineer  
(832) 320-5895  
milipatel@cpg.com

**County-Plant Identification Number: 51-139-0027**

### **Facility Description: NAICS 486210 - Natural Gas Transmission**

Columbia Gas Transmissions LLC's Shenandoah Compressor Station is a natural gas compressor station located in Page County, Virginia. Natural gas is received via gas pipelines from an upstream compressor station, it is compressed using natural gas-fired turbines, and pumped into outlet pipelines for transmission to a downstream station.

The natural gas-fired turbines are site-rated at 5,027 horsepower (hp) each. Other on-site auxiliary equipment includes one natural gas emergency generator rated at 135 hp, and a natural gas-fired heating system boiler rated at 2.1 MMBtu/hr.

The facility's potential to emit exceeds Title V permitting thresholds for NO<sub>x</sub> but is considered a minor source for PSD purposes and is an area source of hazardous air pollutants. The facility is currently permitted under a minor NSR permit dated August 23, 1991 as amended January 27, 1994, March 10, 1995, August 6, 1998, and September 16, 2008.

## Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date**
Combustion Turbines							
1	E01	Combustion Turbine #1 (Natural gas fired) Allison 501-KC5 (Constructed 1992)	48.6 MMBtu/hr (Input) 5,027 hp (Output)	-	-	-	8/23/1991, 1/27/1994, 3/10/1995, 8/6/1998, and 09/16/2008
2	E02	Combustion Turbine #2 (Natural gas fired) Allison 501-KC5 (Constructed 1992)	48.6 MMBtu/hr (Input) 5,027 hp (Output)	-	-	-	
Fuel Burning Equipment							
G1	G1	Auxiliary Generator Waukesha F11GSI (Constructed 1992)	1.6 MMBtu/hr (Input) 135 hp (Output)	-	-	-	8/23/1991, 1/27/1994, 3/10/1995, 8/6/1998, and 9/16/2008
BLR1	BL1	Heating Boiler Hydrotherm MR-1500-BPV (Constructed 1992)	2.1 MMBtu/hr (Input)	-	-	-	

\* The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

**Combustion Turbine Requirements – (Units 1 & 2)**

1. **Limitations** – Nitrogen Oxides (NO<sub>x</sub>) and Carbon Monoxide (CO) emissions from the turbines shall be controlled by combustion with a lean fuel to air ratio. The turbines and control room shall be provided with adequate access for inspection.  
(9 VAC 5-80-110 and Condition 4 of 8/23/91 Permit)
2. **Limitations** – The approved fuel for the turbines is natural gas with a sulfur content limit of 20 grains per 100 standard cubic feet, or 0.068 percent or less by weight. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110, 40 CFR §60.333 and Condition 15 of 8/23/91 Permit as amended 9/16/08)
3. **Limitations** – Fuel consumption for the turbines shall be as follows:
  - a. While operating during the ozone season of April 1 through October 31, each turbine shall consume no more than 49,870 cubic feet of natural gas per hour.
  - b. While operating outside of the ozone season from November 1 to March 31, each turbine shall consume no more than 57,723 cubic feet of natural gas per hour.
  - c. Each turbine shall consume no more than 420 million cubic feet of natural gas per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
(9 VAC 5-80-110 and Condition 6 of 8/23/91 Permit as amended 3/10/95)
4. **Limitations** – While operating during the ozone season of April 1 through October 31, emissions from the operation of each turbine shall not exceed the limitations specified below:

Sulfur Dioxide	0.62 lbs/hr	
Nitrogen Oxides (as NO <sub>2</sub> )	16.0 lbs/hr	110 ppmv (on basis of 15% O <sub>2</sub> , dry, ISO standard ambient conditions)
Carbon Monoxide	11.2 lbs/hr	
Volatile Organic Compounds	0.64 lbs/hr	

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the

exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 1, 2, 3, 8, and 14.

(9 VAC 5-80-110, 40 CFR §60.332 and Condition 9 of 8/23/91 Permit as amended 1/27/1994 and 3/10/95)

5. **Limitations** – While operating outside the ozone season from November 1 through March 31, emissions from the operation of each turbine shall not exceed the limitations specified below:

Sulfur Dioxide	0.62 lbs/hr	
Nitrogen Oxides (as NO <sub>2</sub> )	29.1 lbs/hr	169 ppmv (on basis of 15% O <sub>2</sub> , dry, ISO standard ambient conditions)
Carbon Monoxide	13.0 lbs/hr	
Volatile Organic Compounds	0.74 lbs/hr	

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 1, 2, 3, 8, and 14.

(9 VAC 5-80-110, 40 CFR §60.332 and Condition 9 of 8/23/91 Permit as amended 3/10/95)

6. **Limitations** – The annual emissions from the operation of each turbine shall not exceed the limitations specified below:

Sulfur Dioxide	2.7 tons/yr
Nitrogen Oxides (as NO <sub>2</sub> )	70.0 tons/yr
Carbon Monoxide	49.0 tons/yr
Volatile Organic Compounds	2.8 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be

considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 1, 2, 3, 8, and 14.

(9 VAC 5-80-110, 40 CFR §60.332 and Condition 9 of 8/23/91 Permit as amended 3/10/95)

7. **Limitations** – Visible emissions from the turbines' exhausts shall not exceed five percent opacity, as determined by 40 CFR 60, Appendix A, Method 9.  
(9 VAC 5-80-110 and Condition 12 of 8/23/91 Permit)
8. **Limitations** – Turbine emissions shall be controlled by proper operation and maintenance. Operators shall be trained in the proper operation of this equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum.  
(9 VAC 5-80-110)
9. **Monitoring** – The permittee shall have for each turbine a permanently installed gauge of the flow rate of fuel (natural gas). The gauge shall have a readout in cubic feet per second and shall be readily accessible.  
(9 VAC 5-80-110 and Condition 7 of 8/23/91 Permit)
10. **Monitoring and Recordkeeping** – The permittee shall maintain records of either a valid purchase contract, tariff sheet, transportation contracts or representative sampling data for the gaseous fuel to indicate that the maximum total sulfur content of the fuel is 20.0 grains per 100 standard cubic feet, 0.068 percent by weight, or less.  
(9 VAC 5-80-110, 40 CFR 60.334(h)(3), and Condition 18 of 8/23/91 Permit as amended 9/16/08)
11. **Monitoring and Recordkeeping** – Fuel monitoring of the nitrogen content, as specified by NSPS Subpart GG, is waived.  
(9 VAC 5-80-110 and Condition 16 of 8/23/91 Permit)
12. **Monitoring and Recordkeeping** – In order to minimize the duration and frequency of excess emissions, including visible emissions, due to malfunctions of process equipment or air pollution control equipment, the permittee shall:
  - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
  - b. Maintain an inventory of spare parts that are needed to minimize durations of air pollution control equipment and process equipment breakdown, as applicable.  
(9 VAC 5-80-110)
13. **Recordkeeping** – The permittee shall maintain records of the required turbine operator training including a statement of time, place, and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the turbines. These procedures shall be based on the manufacturer's recommendations, at a

minimum.  
(9 VAC 5-80-110)

14. **Recordkeeping** – The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:
- a. The annual fuel consumption (in million cubic feet) by each turbine, calculated monthly as the sum of each consecutive 12-month period, as required by Condition 3.c.
  - b. Hourly natural gas consumption for each turbine (1 & 2) recorded hourly as gas consumed during the clock hour (scf/hr) to demonstrate compliance with Conditions 3.a and 3.b.
  - c. The DEQ approved, pollutant-specific emission factors and the equations used to demonstrate compliance with Conditions 4 through 6.
  - d. Annual emissions calculated monthly for each turbine to demonstrate compliance with Condition 6.
  - e. Fuel sulfur documentation as required by Condition 10.
  - f. Records of maintenance, operating procedures, and training as required by Conditions 8 and 13.
  - g. Records of bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment as required by Condition 12.
  - h. Results of all performance tests and visible emissions evaluations.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and Condition 17 of 8/23/91 Permit)

15. **Testing** - No less frequent than once each five-year period, and upon request by the DEQ, the permittee shall conduct performance tests on the turbines (1 & 2) for NO<sub>x</sub> using the specified fuel and the appropriate EPA Reference Method. The performance testing on one unit will satisfy the testing requirement for the other unit provided they are identical units. During the next five-year period, the permittee shall conduct performance testing on the other unit.

Testing shall be conducted to determine compliance with emission limits contained in Condition 4. The details of the tests are to be arranged with the DEQ. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the DEQ within 60 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-80-110)

16. **Testing** – Concurrently with the performance test required in Condition 15, the permittee shall also conduct a Visible Emissions Evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 on the turbine being performance tested that five-year period. Each test shall consist of ten sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the test are to be arranged with the DEQ. The permittee shall submit a test protocol at least 30 days prior to testing. Should conditions prevent concurrent opacity observations, the DEQ shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Rescheduled testing shall be conducted under the same conditions (as possible) as the performance test. One copy of the test results shall be submitted to the DEQ within 60 days after test completion and shall conform to the test report format enclosed with this permit.  
(9 VAC 5-80-110)
17. **Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.  
(9 VAC 5-80-110)

**Fuel Burning Equipment Requirements – (Units G1 & BLR1)**

18. **Limitations** – The approved fuel for the emergency generator (G1) and heating boiler (BLR1) is natural gas with a sulfur content of 20.0 grains per 100 standard cubic feet, 0.068 percent by weight, or less. A change in the fuel may require a permit to modify and operate. (9 VAC 5-80-110 and Condition 15 of 8/23/91 Permit, as amended 9/16/08)
19. **Limitations** – The heating boiler (BLR1) shall consume no more than 18.4 million cubic feet of natural gas per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
(9 VAC 5-80-110 and Condition 8 of the 8/23/91 Permit)
20. **Limitations** – Emissions from the operation of the heating boiler (BLR1) shall not exceed the limitations specified below:

Nitrogen Oxides (as NO <sub>2</sub> )	0.25 lbs/hr	1.1 tons/yr
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Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 18, 19, 25, and 32.  
(9 VAC 5-80-110 and Condition 10 of the 8/23/91 Permit)

21. **Limitations** – The emergency generator (G1) shall not operate more than 168 hours per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
(9 VAC 5-80-110 and Condition 5 of 8/23/91 Permit)
22. **Limitations** – Emissions from the operation of the emergency generator (G1) shall not exceed the limits specified below:

Nitrogen Oxides (as NO <sub>2</sub> )	3.6 lbs/hr	0.3 tons/yr
Carbon Monoxide	3.6 lbs/hr	0.3 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by

adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 18, 21, 25, and 32.  
(9 VAC 5-80-110 and Condition 11 of the 8/23/91 Permit)

23. **Limitations** – Visible emissions from the heating boiler exhaust (BLR1) shall not exceed five percent opacity as determined by 40 CFR 60, Appendix A, Method 9.  
(9 VAC 5-80-110 and Condition 12 of 8/23/91 Permit)
24. **Limitations** – Visible emissions from the emergency generator (G1) shall not exceed ten percent opacity as determined by 40 CFR 60, Appendix A, Method 9.  
(9 VAC 5-80-110 and Condition 13 of 8/23/91 Permit)
25. **Limitations** – The heating boiler (BLR1) emissions shall be controlled by proper operation and maintenance. Operators shall be trained in the proper operation of this equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum.  
(9 VAC 5-80-110)
26. **Limitations** – At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the emergency generator (G1), including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.
- The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the operation of the emergency generator:
- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
  - b. Maintain an inventory of spare parts.
  - c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
  - d. Train operators in the proper operation of all relevant equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

(9 VAC 5-80-110, 40 CFR 63.6605 (b), 40 CFR 63.6625 (e), 40 CFR 63.6640 (a), and 40 CFR 63, Subpart ZZZZ)

27. **Limitations** – The emergency generator (G1) must be operated in accordance with the following:

- a. For the engine to be considered an emergency stationary RICE, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this condition, is prohibited. If you do not operate the engine according to the requirements in this condition, the engine will not be considered an emergency engine under 40 CFR 63, Subpart ZZZZ, and must meet the requirements for non-emergency engines.
- b. You may operate the emergency generator (G1) for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
- c. You may operate the emergency generator (G1) for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(9 VAC 5-80-110, 40 CFR 63.6640 (f), and 40 CFR 63, Subpart ZZZZ)

28. **Limitations** – The emergency generator (G1) shall comply with the maintenance requirements specified in Table 2d to 40 CFR 63, Subpart ZZZZ:

- a. Change oil and filter every 500 hours of operation or annually, whichever comes first, or at an extended frequency if utilizing an oil analysis program as described in §40 CFR 63.6625(i) or (j);
- b. Inspect spark plugs every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and
- c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in this condition, or if performing the management practice on the required schedule

would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

(9 VAC 5-80-110, 9 VAC 5-60-100, 40 CFR 63.6603 (a), and 40 CFR 63, Subpart ZZZZ)

29. **Limitations** – During periods of startup, the permittee must minimize the time spent at idle for the emergency generator (G1) and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations from 40 CFR 63, Subpart ZZZZ, Tables 1a, 2a, 2c, and 2d apply.

(9 VAC 5-80-110, 40 CFR 63.6625 (h), and 40 CFR 63, Subpart ZZZZ)

30. **Monitoring** – The permittee shall install a non-resettable hour meter on the emergency generator (G1). The hour meter shall be provided with adequate access for inspection.

(9 VAC 5-80-110, 40 CFR 63.6625 (f), and 40 CFR 63, Subpart ZZZZ)

31. **Recordkeeping** – The permittee shall maintain records of the required boiler operator training including date and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for this equipment. These procedures shall be based on the manufacturer's recommendations, at minimum.

(9 VAC 5-80-110)

32. **Recordkeeping** – The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include:

- a. The annual fuel consumption (in million cubic feet) by the heating boiler (BLR1), calculated monthly as the sum of each consecutive 12-month period, as required by Condition 19.
- b. Annual emissions calculated monthly from the heating boiler (BLR1) to demonstrate compliance with Condition 20.
- c. Annual hours of operation of the emergency generator (G1), calculated monthly as the sum of each consecutive 12-month period, as required by Condition 21.
- d. Annual emissions calculated monthly from the emergency generator (G1) to demonstrate compliance with Condition 22.
- e. The DEQ approved, pollutant-specific emission factors and the equations used to demonstrate compliance with Conditions 20 and 22.

- f. Records of the maintenance conducted on the emergency generator (G1), operating procedures, and training in order to demonstrate that the engine is operated and maintained according to the maintenance plan required by Condition 26.
- g. Records of maintenance, operating procedures, and training as required by Condition 31.
- h. Records of the hours of operation of the emergency generator (G1) that are recorded on a non-resettable hour meter. The permittee must document how many hours are spent for emergency operation (including what classified the operation as emergency), non-emergency operation, maintenance, and testing.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110, Condition 17 of 8/23/91 Permit, 40 CFR 63.6655 (e) & (f), 40 CFR 63.6660, and 40 CFR 63, Subpart ZZZZ)

33. **Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.

(9 VAC 5-80-110)

## Insignificant Emission Units

34. **Insignificant Emission Units** -The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

<b>Emission Unit No.</b>	<b>Emission Unit Description</b>	<b>Citation (9 VAC_)</b>	<b>Pollutant(s) Emitted (5-80-720 B)</b>	<b>Rated Capacity (5-80-720 C)</b>
AO1	Pipeline Liquids Tank	5-80-720 B	VOC, benzene, ethylbenzene, hexane, toluene, xylene	1,000 gallons
AO2	Pipeline Liquids Tank	5-80-720 B	VOC, benzene, ethylbenzene, hexane, toluene, xylene	1,000 gallons
BO1	Water Mixture Tank (Wastewater)	5-80-720 B	VOC	1,000 gallons
FUG	Equipment Leaks and Blowdown	5-80-720 B	VOC	--

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110. (9 VAC 5-80-110)

## Permit Shield & Inapplicable Requirements

35. **Permit Shield & Inapplicable Requirements** - Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 60, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	The heating boiler (BLR1) is rated less than 10 MMBtu/hr and is therefore not subject to this subpart.
40 CFR 60, Subpart GG §60.334	New Source Performance Standards for Stationary Gas Turbine	The nitrogen monitoring requirements of this section have been waived in accordance with letter dated 8/14/87 from EPA Region III
40 CFR 63, Subpart YYYY	National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines	This standard does not apply to the existing turbines (1 & 2) as this facility is not a major source of hazardous air pollutants (HAPs).
40 CFR 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	This standard applies to the emergency generator (G1) but does not apply to the turbines (1 and 2) because they do not meet the regulatory definition of stationary RICE.
40 CFR 64	Compliance Assurance Monitoring (CAM)	The facility does not have any controls on its emission units, so CAM does not apply according to 40 CFR 64.2(a)(3).
40 CFR 98	Greenhouse Gas (GHG) Reporting	Requirements in the GHG Reporting Rule in 40 CFR Part 98 are currently not included in the definition of “applicable requirement” in 40 CFR 70.2 and 71.2.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.

(9 VAC 5-80-110 and 9 VAC 5-80-140)

## General Conditions

**36. Federal Enforceability** – All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

(9 VAC 5-80-110 N)

## 37. Permit Expiration

- a. This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
- b. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
- c. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
- d. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
- e. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
- f. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

**38. Recordkeeping and Reporting** – All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

- a. The date, place as defined in the permit, and time of sampling or measurements;

- b. The date(s) analyses were performed;
- c. The company or entity that performed the analyses;
- d. The analytical techniques or methods used;
- e. The results of such analyses; and
- f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

39. **Recordkeeping and Reporting** – Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9 VAC 5-80-110 F)

40. **Recordkeeping and Reporting** – The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31; and
- b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:
  - (1) Exceedance of emissions limitations or operational restrictions;
  - (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring or periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,
  - (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”

(9 VAC 5-80-110 F)

41. **Annual Compliance Certification** – Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the certification. The time period to be addressed is January 1 to December 31.
- b. The identification of each term or condition of the permit that is the basis of the certification.
- c. The compliance status.
- d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
- e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
- f. Such other facts as the permit may require to determine the compliance status of the source.
- g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

[R3\\_APD\\_Permits@epa.gov](mailto:R3_APD_Permits@epa.gov)

(9 VAC 5-80-110 K.5)

42. **Permit Deviation Reporting** – The permittee shall notify the DEQ, within four daytime business hours, after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to Condition 40 of this permit.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

43. **Failure/Malfunction Reporting** – In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess

emissions for more than one hour, the owner shall in no later than four daytime business hours after the malfunction is discovered, notify the DEQ of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the DEQ.

(9 VAC 5-80-110 and 9 VAC 5-20-180 C)

44. **Severability** – The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.  
(9 VAC 5-80-110 G.1)
45. **Duty to Comply** – The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.  
(9 VAC 5-80-110 G.2)
46. **Need to Halt or Reduce Activity not a Defense** – It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.  
(9 VAC 5-80-110 G.3)
47. **Permit Modification** – A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.  
(9 VAC 5-80-110, 9 VAC 5-80-190, and 9 VAC 5-80-260)
48. **Property Rights** – The permit does not convey any property rights of any sort, or any exclusive privilege.  
(9 VAC 5-80-110 G.5)
49. **Duty to Submit Information** – The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.  
(9 VAC 5-80-110 G.6)

50. **Duty to Submit Information** – Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.  
(9 VAC 5-80-110 K.1)
51. **Duty to Pay Permit Fees** – The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350 in addition to an annual permit maintenance fee consistent with the requirements of 9 VAC 5-80-2310 through 9 VAC 5-80-2350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by **April 15** of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department. The amount of the annual permit maintenance fee shall be the largest applicable base permit maintenance fee amount from Table 8-11A in 9 VAC 5-80-2340, adjusted annually by the change in the Consumer Price Index.  
(9 VAC 5-80-110 H, 9 VAC 5-80-340 C and 9 VAC 5-80-2340 B)
52. **Fugitive Dust Emission Standards** – During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:
- a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
  - b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
  - c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
  - d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
  - e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.
- (9 VAC 5-80-110 and 9 VAC 5-50-90)
53. **Startup, Shutdown, and Malfunction** – At all times, including periods of startup, shutdown, and malfunction, owners shall, to the extent practicable, maintain and operate any

affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-80-110 and 9 VAC 5-50-20 E)

54. **Alternative Operating Scenarios** – Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.

(9 VAC 5-80-110 J)

55. **Inspection and Entry Requirements** – The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

- a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
- b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

56. **Reopening For Cause** – The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F. The conditions for reopening a permit are as follows:

- a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

- b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

**57. Permit Availability** – Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-110 and 9 VAC 5-80-150 E)

**58. Transfer of Permits**

- a. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
- b. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
- c. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.

(9 VAC 5-80-110 and 9 VAC 5-80-160)

**59. Permit Revocation or Termination for Cause** – A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-110, 9 VAC 5-80-190 C, and 9 VAC 5-80-260)

**60. Duty to Supplement or Correct Application** – Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.

(9 VAC 5-80-110 and 9 VAC 5-80-80 E)

61. **Stratospheric Ozone Protection** – If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.  
(9 VAC 5-80-110 and 40 CFR Part 82, Subparts A-F)
62. **Asbestos Requirements** - The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).  
(9VAC5-60-70 and 9VAC5-80-110)
63. **Accidental Release Prevention** – If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.  
(9 VAC 5-80-110 and 40 CFR Part 68)
64. **Changes to Permits for Emissions Trading** – No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.  
(9 VAC 5-80-110 I)
65. **Emissions Trading** – Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:
- a. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
  - b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
  - c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.
- (9 VAC 5-80-110 I)

## SOURCE TESTING REPORT FORMAT

### Report Cover

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Test Dates.
4. Tester; name, address and report date

### Certification

1. Signed by team leader/certified observer (include certification date)
2. Signed by responsible company official
3. \*Signed by reviewer

### Copy of approved test protocol

### Summary

1. Reason for testing
2. Test dates
3. Identification of unit tested & the maximum rated capacity
4. \*For each emission unit, a table showing:
  - a. Operating rate
  - b. Test Methods
  - c. Pollutants tested
  - d. Test results for each run and the run average
  - e. Pollutant standard or limit
5. Summarized process and control equipment data for each run and the average, as required by the test protocol
6. A statement that test was conducted in accordance with the test protocol or identification & discussion of deviations, including the likely impact on results
7. Any other important information

### Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Sampling port location and dimensioned cross section Attached protocol includes: sketch of stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions

### Test Results

1. Detailed test results for each run
2. \*Sample calculations
3. \*Description of collected samples, to include audits when applicable

### Appendix

1. \*Raw production data
2. \*Raw field data
3. \*Laboratory reports
4. \*Chain of custody records for lab samples
5. \*Calibration procedures and results
6. Project participants and titles
7. Observers' names (industry and agency)
8. Related correspondence
9. Standard procedures

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\* Not applicable to visible emission evaluation